

**EXHIBIT K**  
**Captain Bolton's Report**

STEPSKI

V.

M/V NORASIA ALYA

Report of Captain Jay Bolton

For

Blank Rome LLP

May 6, 2008

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## **1. Assignment**

The undersigned was tasked to provide conclusions and opinions, as an experienced master mariner,<sup>1</sup> concerning the possible cause(s) of and apportionment of fault in the May 4, 2004, collision incident involving the fishing vessel *Ava Claire*, and another vessel - allegedly the container vessel, *Norasia Alya*.

## **2. Overview**

On May 22, 2004, around 03:00, Michael Stepski departed New London Connecticut with two crew members aboard his forty-two foot plywood and fiberglass fishing vessel, the *Ava Claire*, for the purposes of fishing about thirty miles south of Montauk, Long Island. When he arrived at an approximate position of Latitude 40-32N and Longitude 071-44W, a position located inside the Northern (inbound) traffic lane of the Safety Fairway leading to New York, he commenced fishing. The fishing activities entailed recovering an already deployed, nearly mile long string of nets, removing the fish, and then redeploying the nets. The visibility was reported to be about 0.1 mile or less. The Coast Guard reported three to five-foot seas.<sup>2</sup> Michael Stepski was not sounding fog signals nor was he sending VHF warnings. His boat was not equipped with a radar reflector. Sometime between 11:00 and 12:30, another vessel is alleged to have collided with the *Ava Claire*, causing it to sink. The crew members were rescued by the US Coast Guard around 15:30. None of the crew suffered even minor injuries.

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<sup>1</sup> The undersigned has about thirty years of seafaring and maritime industry experience including about eleven years commanding tankers from 45,000 dwt to 265,000 dwt. (A summary of qualifications and experience is attached as Appendix IV.)

<sup>2</sup> Coast Guard release No: 041-04 May 23, 2004, Kowalewski exhibit 13.

**3. Opinions**

- The owner/captain of the *Ava Claire*, Michael Stepski, committed several causative faults with respect to the navigation of his vessel, in contravention to the International Regulations for Preventing Collisions at Sea (COLREGS) Rules and U.S. Federal Regulations and is singularly at fault for causing the collision.
- It is highly improbable that the *Norasia Alya* was involved in the collision with the *Ava Claire*.
- It is much more probable that a steel hulled fishing vessel, not identified by AIS, or the tanker *Podravina* was the vessel which collided with the *Ava Claire*.
- Captain Ahlstrom's expert report, representing *Ava Claire*'s interests, provides erroneous conclusions that were made without the benefit of information that would have enabled a thorough analysis of the circumstances of the case.

**4. Determination of Causative Navigational Faults**

The determination of causative navigational faults with respect to COLREGS Rules and other regulations violations was based, to the degree possible, on facts. Once the factual causative faults were determined, then the "error chain"<sup>3</sup> was examined to find the reasons for the incident.

This analysis included plotting of: the variously reported positions of both vessels alleged to have been involved; the subsequent positions of the *Ava Claire*'s life raft, as reported by the Coast Guard; and the time and

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<sup>3</sup> Error Chain – A series of events, or reckless or negligent conduct that, if not corrected, ultimately creates the dynamics for a disaster.

location of the collision that the *Ava Claire*'s owner, Mr. Stepski, related to the Coast Guard immediately after the incident and that he testified to at his deposition.<sup>4</sup>

**5. International Regulations for Preventing Collisions at Sea (COLREGS) and Federal Regulations**

The examination of the applicable COLREGS demonstrates the *Ava Claire*'s specific causative faults, and puts into context, what went wrong -- what created the classic error/disaster chain that led to the collision with another vessel leading to the sinking of the *Ava Claire*.

The COLREGS are divided into three basic components: Responsibility, Risk Assessment, and Risk Management. Each applicable component is discussed separately.<sup>5</sup>

**Rule 2 Responsibility**

Rule 2 is the cornerstone upon which all other Rules are built. It specifies the broad requirement that a vessel's owner, master and crew are not to be negligent with respect to *taking any precaution* that would be *reasonably be expected* by the good practices of mariners under any navigational circumstance. As demonstrated herein, all of the *Ava Claire* captain's causative navigational faults and other acts of negligence will lead back to this Rule.

The subsequent Rules are divided into two components: risk assessment - rules that are applicable in any condition of visibility; and risk management - rules that specify a vessel's navigational conduct.

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<sup>4</sup> See the detailed discussion in Appendix 1.

<sup>5</sup> The discussion of the Rules as they apply to the *Norasia Alya* is contained in the Appendix because my analysis indicates the *Norasia Alya* was probably not the colliding vessel.

## Risk Assessment Rules

All mariners are required to engage in a continuous risk assessment process. The requirements are contained in the six rules that apply to the navigational conduct of vessels *in any condition of visibility*. These Rules include instructions that, if properly adhered to, provide mariners the opportunity to achieve extensive situational awareness of their navigational circumstances. The risk assessment rules applicable to this case are: Rule 5, Look-out; Rule 6, Safe Speed; Rule 7, Risk of Collision; Rule 8, Action to Avoid Collision; and Rule 10, Traffic Separation Schemes.

### Rule 5 – Look-out

Rule 5 requires mariners to constantly monitor and assess, without any interruptions, evolving vessel traffic situations and conditions of visibility. The specifics of how to fulfill the requirements of this Rule are generally left up to the master, who must decide how best to use the available appropriate assets in order to meet this requirement.

*Ava Claire* Mr. Stepski did not constantly maintain a lookout, by any means. During the period leading up to the collision he was principally working outside the wheelhouse engaged in fishing.<sup>6</sup>

### Rule 6 Safe Speed

Rule 6 requires that all vessels be navigated at a safe speed. Safe speed can be generally determined by assessing the circumstances a mariner instantly encounters as he navigates his vessel, and should be changed as circumstances dictate. In some cases, safe speed may mean maximum full sea speed. In others, safe speed may mean navigating at the slowest possible

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<sup>6</sup> Stepski deposition pp. 142:9-20; 144:4-11; 153:7-9, 16-21; 158:19-25; 159:2-25; 166:23-25, 167:2-8.

speed. There may be situations where sudden reductions of speed, or even stopping a vessel, may be considered to be an unsafe speed.

*Ava Claire* The *Ava Claire* was stopped while secured to anchored, or semi-anchored, fishing nets<sup>7</sup> in or near the middle of the inbound traffic lane, and safety fairway – a fairway designed to provide, “unobstructed approaches for vessels using U.S. ports.”<sup>8</sup> Mr. Stepski failed to determine “safe speed” for his vessel by taking into account any of the risk assessment requirements of Rule 6, such as the state of visibility, the traffic density or the maneuvering capability of his vessel, Rule 6(a)(i) – (iii), or the limitations of his radar equipment,<sup>9</sup> or movement of vessels detected on his radar. Rule 6(b)(i)(v).

### Rule 7 Risk of Collision

Rule 7 is similar in some respects to Rule 5 (lookout). It too requires the mariner to maintain the maximum possible degree of situational awareness, using all available means appropriate, principally radar – also VHF radiotelephone and Automatic Identification Systems.

*Ava Claire* Although Mr. Stepski detected a radar target at six miles, he left the wheelhouse and returned to fishing. He:

- Didn't determine if a risk of collision existed when he detected a target at 6 miles distance.<sup>10</sup>

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<sup>7</sup> The boat's engine was declutched. Schober Deposition p. 64:11-12: “Mike ran into the wheel house and put the boat in gear and tried getting out of the way.”

<sup>8</sup> 33 CFR Part 166.100.

<sup>9</sup> The *Ava Claire*'s Furuno radar provided head up display only. Because *Ava Claire*'s course heading wasn't steady, varying between 090 and 045 degrees during fishing operations, constant observation of the radar and plotting the targets on paper was necessary to determine if there was a risk of collision. Stepski deposition pp. 280-282; Coast Guard Finding of Fact, page 2, paragraph 6.

<sup>10</sup> Coast Guard Finding of Fact page 3, section 9. Although Stepski claims to have watched the radar while hauling nets, it is not likely he could have done so effectively because he would have had to analyze radar targets by looking at a small radar screen, 10 inches or smaller, that was located about ten feet away from his work station looking through a window about six feet away – all while tending the fish net hauler.

- Didn't engage in long range scanning for targets to a distance of at least 12 miles.<sup>11</sup>
- Didn't engage in plotting or any systematic continuous observation of detected radar targets.<sup>12</sup>
- Didn't provide his vessel with an AIS transponder with which to send and receive vessel navigation information – Rule 2.
- Didn't use his VHF radiotelephone.<sup>13</sup>

Confirmation of Mr. Stepski's failure to comply with Rule 7's obligation to maintain the maximum degree of situational awareness is the fact that he was suddenly surprised by the close proximity of an approaching vessel and didn't have sufficient time to maneuver his vessel to avoid a collision.<sup>14</sup>

### Rule 8 Action to Avoid Collision

Rule 8 requires that when a mariner detects a vessel, he must to assess the situation and without delay take appropriate, prompt, and decisive navigational measures to avoid a close quarters, risk of collision situation.

*Ava Claire* Mr. Stepski detected a radar target at about six miles. But, instead of taking positive prompt action to avoid a close quarters, risk of collision situation, he went back to fishing, with his vessel secured to nets, unable to maneuver – All the while, impeding vessel traffic, thereby violating Rule 8(f) (i), (ii).<sup>15</sup>

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<sup>11</sup> Coast Guard Finding of Fact page 3, section 8.

<sup>12</sup> Coast Guard Finding of fact page 2, paragraph 6.

<sup>13</sup> Stepski deposition p. 163:5 to 163:13.

<sup>14</sup> Schrober deposition p. 63:24 to 66:25. Roderick deposition p. 50:24 to 52:16. Stepski deposition p. 143:13-17, 151:7-14, 153:7-24, 157:3-19.

<sup>15</sup> COLREGS Rule 8(f)(i): "Any vessel which, by any of these Rules, is required not to impede the passage or safe passage of another vessel shall, when required by the circumstances of the case, take early action to allow sufficient sea-room for the safe passage of the other vessel. (ii) A vessel required not to impede the passage or safe passage of another vessel is not relieved of this obligation if approaching the other vessel so as to involve risk of collision and shall, when taking action, have full regard to the action which may be required by the Rules of this part."

### Rule 10 Traffic Separation Schemes (TSS)

Rule 10 applies to all vessels, including fishing vessels, when navigating in designated TSS. The appropriate uses of TSS are key factors that a mariner includes in the risk assessment and risk management process. The Rule explicitly prohibits fishing vessels from impeding other vessels that are following a traffic lane.<sup>16</sup> Although the inbound safety fairway is not an IMO designated TSS, by custom mariners navigate in the safety fairway as if it were a TSS. Accordingly, the rules for a TSS apply through the prudent practice of seamen.

*Ava Claire* Mr. Stepski was fishing inside the designated inbound traffic separation fairway,<sup>17</sup> thereby creating an obstruction to all inbound vessel traffic.

### Risk Management Rules

Mariners, having assessed the navigational risks, must then engage in Risk Management in accordance with the Rules. The Risk Management Rules are divided into two sections: Rules for the conduct for vessels navigating in or near restricted visibility *when vessels are not in sight of one another*, Rule 19, and Rules for conduct when vessels are in *sight of one another*. Rules 12 through 18.

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<sup>16</sup> Rule 10(i) "A vessel engaged in fishing shall not impede the passage of any vessel following a traffic lane."

<sup>17</sup> Exhibit 9, Coast Guard record of conversation 22 May 2004, lists Loran position 43605 and 14760, which puts the Ava Claire in the middle of the two mile wide inbound traffic lane. Exhibit 10, Stepski's handwritten statement dated 22 May 2004, lists Loran position 14700 and 43600 which puts the Ava Claire about 0.6 mi inside the inbound traffic lane. About two years later, at his November 2006 deposition, Stepski denied being in these positions and claimed to have been at a position about 9.5 miles away from his original stated position of Ex. 9 and about 3.0 miles away from the position claimed in Ex. 10. Stepski deposition p. 219:2 to 221:17.

### Rule 19 Conduct of Vessels in Restricted Visibility

Rule 19 requires *all* vessels, including fishing vessels, when not in sight of one another, to prevent the development of a close quarters or risk of collision situation with other detected vessels by taking early, positive and substantial action, pursuant to the Rule – just as soon as other vessels are detected as potential risks. Under Rule 19, no vessel has any privileges over the other.

*Ava Claire* Mr. Stepski did not comply with this Rule: He kept his vessel secured to fishing nets, and hence stopped, unable to maneuver, failed to take any action to decrease the risk of collision.

### Rule 18 Responsibilities Between Vessels

When vessels are *in sight of one another*, Rule 18 bestows certain navigational privileges to fishing vessels. Thus, when navigating in or near areas of restricted visibility and another vessel becomes visible, the mariner must decide when, or if Rule 18 applies. The answer can be found in Rules 8 and 19, which mandate that vessels, detecting the presence of other vessels, take positive early action to avoid a close quarters, risk of collision situation. Thus, Rule 19 continues to apply unless and until the visibility clears long enough so that each of the involved vessels can see one another with ample time for each to conduct a risk assessment analysis, determine which navigation Rule is applicable, and take appropriate action. A mariner who has been navigating in violation of Rule 19 may not claim privileges under Rule 18 merely because the two vessels become visible just seconds, or even a few minutes, before a collision. Rule 2 does not exonerate the mariner for failing to take any precaution expected of good seamen.

*Ava Claire* Mr. Stepski was navigating in restricted visibility and had no navigational privileges (for fishing vessels) as prescribed in Rule

18. According to *Ava Claire*'s crew, the collision occurred seconds after the *Norasia Alya* appeared out of the fog.<sup>18</sup> This by any standard was insufficient time to change a Rule 19 situation into a Rule 18 situation.

#### Rule 35 Sound Signals in Restricted Visibility

Rule 35 requires vessels when navigating in or near areas of restricted visibility to sound fog signals at certain prescribed intervals.

*Ava Claire* Mr. Stepski admitted that he was not sounding fog signals.<sup>19</sup>

#### VHF Radiotelephone ship-to-ship Communications Systems

Federal Regulations require that fishing vessels be equipped with VHF radiotelephones.<sup>20</sup> The purpose, in part, is to enable communications between vessels with respect to sending and receiving navigational information. For example, when fishing vessels are navigating in or near a safety fairway, TSS, or traffic lane in restricted visibility, or causing an impediment to navigation because of her inability to navigate in accordance with Rule 19, or any Rule, the VHF can, and should, be used to notify other detected nearby ships of her position and nature of impediment.<sup>21</sup> A timely VHF warning enables other vessels to take appropriate action as required by Rule 19 to avoid a close quarters, risk of collision situation.

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<sup>18</sup> Coast Guard Finding of Fact page 3, section 11.

<sup>19</sup> Coast Guard Findings of Fact page 4, paragraph 15.

<sup>20</sup> 46 CFR part 28, subpart 28.245

<sup>21</sup> This is known as a security call (also sometimes called a navigation safety call). It is required in some countries and is part of prudent navigational practice.

Ava Claire Mr. Stepski did not use his VHF Radiotelephone in order to communicate his position and circumstances to other nearby vessels.<sup>22</sup>

### Radar Reflectors

Small fishing craft constructed of plywood and fiberglass are not readily detectable by ships' radars.<sup>23</sup> Consequently, they are required by both U.S. Federal Regulations and the International Maritime Organization (SOLAS) to properly deploy an approved radar reflector that enables detection by other radar equipped ships from a distance of at least six (6) miles.<sup>24</sup> These types of radar reflectors are commonly carried on small fishing vessels.<sup>25</sup>

Ava Claire The *Ava Claire*, a small, low free-boarded plywood fiberglass boat, was not equipped with the required radar reflector.<sup>26</sup> Consequently, the *Ava Claire* essentially was invisible to approaching ships' radar systems.

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<sup>22</sup> Stepski deposition pp. 163:5-3; 184:25 - 185:8.

<sup>23</sup> Appendix II, Marine Guidance Note, "Carriage and Use of Radar Reflectors on Small Vessels."

<sup>24</sup> 46CFR 28.235 Anchors and Radar Reflectors: "(b) Except for a vessel rigged with gear that provides a radar signature from a distance of 6 miles, each non-metallic hull vessel must have a radar reflector.

SOLAS Chapter V, Safety of Navigation, Regulation 19, Carriage requirements for shipborne navigational systems: "2.1 All ships, irrespective of size shall have: (7) If less than 150 gross tonnage and if practicable a radar reflector, or other means, to enable detection by ships navigating by radar at both 9 and 3 GHZ."

<sup>25</sup> Appendix II, Compare the photographs of the *Ava Claire* with the photographs of other local fishing vessels.

<sup>26</sup> Neither Exhibit 2, Johnson Marine Services Pre-purchase survey, nor Exhibit 4, Insurance/Appraisal survey of August 2004, shows that the *Ava Claire* was equipped with a radar reflector.

Automatic Identification Systems (AIS)

Merchant ships are required to be fitted with Automatic Identification Systems (AIS). Although Federal Regulations do not yet require fishing boats to carry AIS, they are commercially available for smaller craft. The purpose is to be able to send and receive important navigational and vessel traffic management information, such as name, type, course, and speed to nearby vessels. The AIS is another device that enhances the situational awareness factor, and is particularly important for vessels navigating in or near traffic lanes in restricted visibility. If Mr. Stepski intended to engage in commercial fishing in dense fog in or near a safety fairway, Rule 2 required that he equip his vessel with an AIS.

Ava Claire Mr. Stepski did not elect to install an AIS system, even though such a device requires a relatively small investment. The lack of such equipment places greater importance in the use of the VHF to make a vessel's position known.

## 6. Education and Training programs

It is essential that all who put to sea aboard any size or type vessel are properly educated, trained and skilled with respect to: implementation of the Rules for Preventing Collisions at Sea, navigation, radar usage, compliance with other flag state regulations, etc.

Coast Guard approved courses are commercially available by several organizations, some of which are specifically tailored to the needs of fishermen and other operators of small craft.<sup>27</sup>

*Ava Claire* - At the time of the incident, Mr. Stepski navigated on the high seas in restricted visibility without ever having received any formal training. The only certification that Mr. Stepski claims to have had was a Connecticut State Boat Operators' License, one that he acquired at the age of about 12, or seventeen years prior to the incident.<sup>28</sup>

Note: Professional mariners when conducting their respective risk assessments must be able to rely in good faith that mariners of small fishing craft are properly trained, skilled and knowledgeable with respect to implementation of COLREGS.

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<sup>27</sup> In addition to courses offered by the U.S. Power Squadron, courses are commercially available, for example from Sea School (800 435 3393), Massachusetts Maritime Academy Continuing Education ([www.maritime.edu](http://www.maritime.edu)) Northeast Maritime Institute ([www.northeastmaritime.com](http://www.northeastmaritime.com)).

<sup>28</sup> Stepski deposition p. 29:16 to 32:25.

## 7. **Summary: Reckless and Negligent Conduct**

The list of Mr. Stepski's causative faults is long. Hence, in my opinion the *Ava Claire* was destined for some type of serious accident because Mr. Stepski:

- Failed to equip and deploy his vessel with a radar reflector in violation of federal regulations, and SOLAS convention requirements.
- Failed to equip his vessel with an Automatic Identification System.
- Failed to make his vessel's presence and its navigational impediment situation known to other nearby vessels by sounding fog signals and sending VHF "security" navigation safety warnings.
- Failed to complete any type of approved training course with respect to maritime safety including: compliance with and implementation of COLEGS, radar usage and navigation.
- Caused his fishing vessel to be an impediment to navigation, during a period of reduced visibility inside the inbound TSS traffic lane and safety fairway.
- Navigated his fishing vessel so as to cause a collision in contravention to COLREGS:
  - Rule 2 Responsibility
  - Rule 5 Lookout
  - Rule 6 Safe speed
  - Rule 7 Risk of collision
  - Rule 8 Action to avoid collision
  - Rule 10 Traffic Separation Schemes
  - Rule 19 Conduct in restricted visibility
  - Rule 35 Fog signals

## 8. The *Norasia Alya* – Not the Colliding Vessel

It is highly improbable that the *Norasia Alya* collided with the *Ava Claire*. The position analysis<sup>29</sup> demonstrates that the *Norasia Alya* was more than thirty miles eastward of the *Ava Claire* at 11:00, the time of the collision estimated by the *Ava Claire*'s Captain Stepski and by another crew member.<sup>30</sup> Even assuming that both witnesses were in error by one hour (highly unlikely), and that the collision occurred at 12:00, the *Norasia Alya* was still thirteen miles eastward of the *Ava Claire*. If the collision occurred at 12:30, as assumed by the Coast Guard,<sup>31</sup> the *Norasia Alya* was about 3.8 miles eastward. Other factors supporting my conclusion that the *Norasia Alya* was not the colliding vessel are:

- The State of Connecticut Forensic Science Laboratory concluded that the paint samples taken from the bow of the *Norasia Alya* and the sample provided by *Ava Claire*'s owner were not a match.<sup>32</sup>
- The assumption that the EBIRB was ripped out of its holding bracket during the collision and started sending signals just after the collision around 12:37 is without merit. The bracket is so designed and constructed, that any impact strong enough to rip the EPIRB from the bracket without first ripping the bracket off the bulkhead would have destroyed the EPIRB.<sup>33</sup> Therefore, the EPIRB's first signal had to

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<sup>29</sup> See Appendix I.

<sup>30</sup> Exhibit 15: "On May 22, 2004 when at about 11:00 while hauling gear at 14700 46300 the boat was hit on the starboard side...." Unnamed crew member.

<sup>31</sup> Exhibit 11, Coast Guard Finding of Fact, summary page 1.

<sup>32</sup> Ahlstrom Exhibit 6, State of Connecticut Forensic Science Laboratory report.

<sup>33</sup> The EPIRB was mounted inside the vessel's cabin in a bracket constructed of high density polyethylene that protects the EPIRB from movement in any direction. The bracket is secured to the bulkhead with three wood screws. A nylon strap and hook secures the EPIRB to the bracket. In the event of a severe impact, the bracket would have been ripped off the bulkhead with the

have been sent some time after the collision, after the crew had located the EPIRB and manually removed it from the bracket. Therefore, the collision likely occurred before the first EPIRB signal and certainly well before 12:37.<sup>34</sup>

- An impact analysis with respect to the expected results of a twenty-two knot (25mph) steel hulled vessel smashing into a forty two foot fiberglass boat was not conducted. In my experience, other merchant ships, navigating at significantly lower speeds (as low as 10 knots) colliding with fishing vessels have caused total boat destruction and severe injuries and/or loss of life. In this case, immediately after the collision, all of the crew were still aboard the boat's the aft section, uninjured. This confirms that if a collision occurred at all, it did not involve the *Norasia Alya*.

If the *Norasia Alya* did not collide with the *Ava Claire*, what vessel did? There are two plausible alternative scenarios:

1. The tanker *Podravina* collided with the *Ava Claire*: This scenario is more probable because, at about 12:30, the Coast Guard's estimated time of collision, *Podravina* was about 3.5 miles ahead of the *Norasia Alya*, inside the traffic lane, and was in the immediate vicinity of where the EPIRB was first located at 12:37.<sup>35</sup> Noting that the approximate speed of the *Podravina* was about thirteen knots, as opposed to the *Norasia Alya*'s twenty-two knots, it would be more reasonable to conclude that the damage done to the *Ava Claire* was done by the slower *Podravina*.
2. The colliding vessel could have been a steel hulled, non-AIS equipped, fishing vessel of the type that typically fish in the area.<sup>36</sup>

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EPIRB. Thus, there would be no EPIRB transmission unit a crew member located the EPIRB and manually removed it from the bracket.

<sup>34</sup> Stepski deposition pp. 238:2-6; 239:4-25; 250:2-18.

<sup>35</sup> See the *Podravina* analysis in Appendix I.

<sup>36</sup> See the photographs in Appendix II. There is no indication that the Coast Guard ever considered this likely scenario or conducted any type of investigation into the possibility of such an occurrence.

This scenario is perhaps even more plausible because a vessel of such size striking the *Ava Claire*, would most likely have created the same essential damage results – vessel cut in two and no injuries. This scenario could explain how the incident occurred much earlier than the Coast Guard’s assumed time of 12:30, and thus explain the time consumed by the crew to accomplish all of the activities post collision – board the life raft, pick up food and drink staples, don immersion suits, find and activate the EPIRP, etc., just prior to either the *Podravina* or the *Norasia Alya* passing them.

The vivid descriptions of the *Norasia Alya* provided by the *Ava Claire*’s three crew members are too complete to be consistent with what might be observed by survivors being struck by a twenty-two knot vessel, especially considering that during this short period of time the crew would have been in the water struggling for survival.<sup>37</sup> I have no information on the manner in which, or when, the Coast Guard may have presented information regarding the AIS identified vessels to Captain Stepski and his crew. It is possible, however, that their recollections may have been influenced by the manner in which they were questioned by the Coast Guard.

There is insufficient evidence to decisively conclude which of the two scenarios actually occurred. However, the plausibility of either of these two scenarios is significantly greater than that of the *Norasia Alya* collision.

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<sup>37</sup> From the moment of the collision to the vessel passing out of sight was only about twenty seconds.

## 9. Captain Ahlstrom – *Ava Claire*'s Expert's Conclusions

I have reviewed the expert report of Captain Ahlstrom, representing *Ava Claire*'s interests. Captain Ahlstrom was not provided with sufficient information to enable him to conduct a thorough and principled analysis of the circumstances of the case.<sup>38</sup> Hence, his opinions/conclusions are incorrect, particularly with respect to his apportionment of one hundred percent of fault to the *Norasia Alya*, and none to the *Ava Claire*. This is demonstrated in deposition testimony when Captain Ahlstrom conceded imprudence and gross negligence attributable to the *Ava Claire*, or any fishing vessel, if it was fishing with nets in a safety fairway in reduced visibility.<sup>39</sup> If Captain Ahlstrom had been made aware of all of the facts of the case, his report would most likely have produced significantly different conclusions with respect to attributable faults.

Captain Ahlstrom also erroneously concluded that the *Norasia Alya* was the colliding vessel. But he ignored the evidence relating to the vessels' positions at critical times and did not explain the discrepancy between their positions.

Captain Ahlstrom's report contains other significant errors that:

- He claims the Coast Guard found that the *Norasia Alya* violated two Collision Regulations: Rule 35 (a) Rule 19(b). This is incorrect. The Coast Guard did not pursue any investigation with respect to Rules violations. The Coast Guard did not conduct hearings nor did it refer the matter to either Port State Control or Flag State.

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<sup>38</sup> Captain Ahlstrom was not provided the deposition transcripts of the *Ava Claire*'s crew.

<sup>39</sup> Captain Ahlstrom deposition p. 112:19-22: "Q: isn't that just negligence to set your nets in the fishing side of the safety fairway? A. it's not prudent..." p. 112:24 – 113:3: "Q: would you also agree with me that if you were fishing in a safety fairway in dense fog it's grossly imprudent? A: It wouldn't be prudent....." p. 114:19-24: "A: "Hypothetically, if somebody went back and forth inside a safety fairway I would consider that grossly negligent. If he consciously went into the fairway, stayed in the fairway, that would not be prudent. It would not be a good call."

- He contends Rules 5 and 6 were violated. But there is no factual information to support this allegation. Further, if the *Norasia Alya* wasn't the colliding vessel, there would be no Rules violations.
- He assumes the collision occurred at about 12:30. This assumption, however, is based on the Coast Guard's report which in turn is based on the Coast Guard's unsubstantiated assumption that the EPIRB signal of 12:37 represented the approximate time of collision.
- As discussed above, Rule 18 does not apply to this case and Captain Ahlstrom is wrong in concluding that it does.

#### **10. Conclusion**

This incident was entirely preventable if Mr. Stepski had navigated his boat in accordance with the COLREGS and Federal Regulations. Therefore, he is singularly to blame for the collision and sinking of the *Ava Claire*.

#### **11. Right to Amend or Append**

I reserve the right to amend or append this report in the event that additional information becomes known to me or if Captain Ahlstrom or others acting on behalf of the *Ava Claire* submit additional reports or express opinions different or other than those asserted in Captain Ahlstrom's report.

Signed  
Capt. Jay Bolton  
6 May 2008

## APPENDIX I

### NORASIA ALYA COLREGS ANALYSIS POSITION ANALYSIS & CHART PODRAVINA ANALYSIS CHART

## APPENDIX I

### *Norasia Alya* COLREGS Analysis

If it is determined that the *Norasia Alya* was involved in the collision, then the following rules would apply to analyzing if there was any causative fault on the *Norasia Alya*: Rule 2 Responsibility Rule 5 Lookout, Rule 6 Safe Speed, 19(b) Conduct of vessels in restricted visibility and Rule 35 Sound signals. Each applicable rule is addressed.

#### Rule 2 Responsibility

Rule 2 specifies the broad requirement that a vessel's owner, master and crew are not to be negligent with respect to *taking any precaution* that would be *reasonably expected* of mariners, under any navigational circumstance. This concept is applied to each of the rules to be discussed – Rule 5 Lookout and Rule 6 Safe Speed.

#### Rule 5 Lookout

Rule 5 requires mariners to constantly monitor and assess, without any interruptions, evolving vessel traffic situations and conditions of visibility. The specifics of how to fulfill the requirements of this Rule is left up to the master. He is responsible for deciding how best to use the available assets using his best professional judgment, in order to meet the requirement of achieving the maximum possible degree of situational awareness. There is no fixed position for a lookout – the proper position depends on the facts and circumstances of the situation, as understood by the ship's master.

In determining how best to meet the situational awareness requirements, the master needs to consider several factors before deciding where best to position the lookout in order to achieve the two principal goals: maximum detection capability by sight and sound, and maximum communications capability with the ship's watch officer. For example, aboard a general cargo or heavy lift ship where the visibility is restricted from the bridge, it is generally better to post a lookout on the bow where he has clear unobstructed view ahead. On ships with unobstructed views looking forward, it may be more effective to have the lookout on the bridge wing in order to facilitate the bridge team management process. This also is true where the configuration of a vessel's bow and forecastle does not allow an unobstructed view by a lookout posted there.

Some mistakenly believe that during periods of restricted visibility a person should always be posted or stationed at the bow of all ships. Before the advent of sophisticated radars, collision avoidance systems and AIS, this may have been the case, in certain conditions. But the bow may not always be the most effective place for lookouts aboard ships with modern, well maintained, electronic equipment. For example, during periods of restricted visibility, a lookout stationed on the bow might be able to detect an object before being detected visually by an officer on the bridge.<sup>1</sup> However, this advantage could be offset by the time needed to communicate accurate information to the bridge, and inaccurate target bearing assessments stemming from the general inability to determine relative bearings from the bow. Thus, if a merchant vessel is being navigated, even at the slowest

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<sup>1</sup> For a vessel making bare steerageway, (6 knots) a lookout stationed six hundred feet forward of the bridge might see an object sixty seconds before being detected on the bridge – insufficient time to take any avoiding action.

navigational speed,<sup>2</sup> once the lookout sees an object and communicates information to the bridge watch officer there might be less than a few seconds available to take avoiding action – an impossibility for a large vessel.

In addition to the above, other factors a master must take into account in determining how best to maintain maximum situational awareness include whether the vessel is equipped with an AIS, the quality of ship's radars, the status of the VHF radios for monitoring communications from other vessels, other vessel traffic, the detection of fishing vessels, whether the vessel is being controlled by Vessel Traffic Control, own ship's tonnage and maneuverability, and human resources.

An effective and dependable means to detect sounds from ahead is by use of a purpose built Sound Reception System with receivers strategically located in accordance with IMO and Class recommendations.<sup>3</sup> Such systems amplify detected faint sounds and provide instant information to the watch officer, without the subjectivity or time delay imposed by a lookout's report to the watch officer on the bridge. Although Sound Reception Systems do not provide accurate directional information with respect to the source of a fog signal, neither can lookouts. Thus, a Sound Reception Systems is an effective substitute to placing a lookout on the bow to listen for sound signals in restricted visibility. Failure to use install a Sound Reception System could be evidence of an owner's failure to comply with Rule 2. A master's failure to use the system could demonstrate fault under Rule 5, if it becomes evident that a fog signal was not detected, and that was the cause of a collision.

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<sup>2</sup> About six knots or 600 ft per minute.

<sup>3</sup> IMO MSC 86(70) Annex 17, Annex 1.

The reviewed evidence demonstrates that the *Norasia Alya* was navigating in restricted visibility with two officers on the bridge using both radars for detection of vessel traffic and collision avoidance, was using the AIS to confirm radar target identification and was monitoring the VHF radio. The design of the *Norasia Alya*'s bow and forecastle does not provide for an obstructed view from the bow of the vessel. Accordingly, the Sound Reception System installed on the forecastle was in use to listen for fog signals ahead of the vessel.<sup>4</sup> Under such a scenario, an additional lookout, even one posted on the bow, would not have prevented a collision with an undetected small plywood and fiberglass boat, not sounding fog signals and fishing in the safety fairway, about one hundred miles from port. Thus, the manner in which the *Norasia Alya* maintained a lookout was not a violation of Rule 5 and did not cause the collision with the *Ava Claire*.

#### Rule 6 Safe Speed and Rule 19 Safe Speed in Restricted Visibility

Rule 6 requires that all vessels be navigated at a safe speed. Rule 19(b) requires vessels shall proceed at a safe speed adapted to the prevailing circumstances and conditions of restricted visibility and have their engines ready for immediate maneuver.

Safe speed can be generally determined by assessing the circumstances a mariner encounters as he navigates his vessel, and should be changed as circumstances dictate.<sup>5</sup> In some cases, safe speed can include any speed up to maximum full sea speed. In others, safe speed may mean navigating at the slowest possible speed. There may be situations where

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<sup>4</sup> See *Norasia Alya* Certificate of Class contained in Ex. Kowalewski 13.

<sup>5</sup> Circumstances can be described as what risks might a skilled mariner reasonably expect to encounter.

sudden reductions of speed, or even stopping a vessel, may be considered to be an unsafe speed.

The first question to be asked is: What is a safe speed, given the type and tonnage of vessel, when navigating in reduced visibility with the engines ready for immediate maneuver, in a vessel traffic lane, in a safety fairway 100 miles from port with other vessels in the traffic lane which have been detected on radar and with no radar, AIS, or VHF indications of the presence of small fishing boats? Under such circumstances, full sea speed is a safe speed.

In determining safe speed, a master is entitled to assume that others navigating in the same waters are doing so in compliance with the COLREGS and internationally established and mandated radar detection standards. Even where a master considers a reduction in speed appropriate, he must also be concerned that when he reduces speed his vessel doesn't become an impediment to another vessel proceeding behind it in the safety fairway, a situation common in areas with high vessel density traffic such as the English Channel, Dover Straits, Malacca Straits and Singapore Straits.

The master of a large vessel must consider all of the above and weigh the benefits and negatives of reducing speed, such as: the loss of vessel maneuverability, and the impossibility of stopping in time to avert a collision with an unidentified floating object - even if navigating at "Dead Slow Ahead." He might decide that while navigating in areas of high vessel traffic density, in the traffic lane, safe speed is the same as other vessel traffic, so as to stay in line with the other vessels.<sup>6</sup>

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<sup>6</sup> If traffic speed was 13 knots, which would equate to the *Norasia Alya*'s approximate "half ahead" speed.

In consideration of the above factors, and also considering that the *Norasia Alya* was maintaining a proper lookout and was complying with all other relevant navigation rules, the *Norasia Alya* was navigated at a safe speed.

In any event, the collision could not have been avoided even if the *Norasia Alya* was proceeding at a slower speed. At slower speeds, the *Norasia Alya* is less maneuverable. So even if the slower speed might have provided more time to detect the target, the *Norasia Alya*'s slower speed would have inhibited her ability to maneuver out of the way. And even at a slower speed, the *Norasia Alya* could not have stopped in time to have avoided the collision even if a bow lookout had been stationed to observe the *Ava Claire*. Also, if any vessel proceeding at any speed above a couple of knots were to collide head-on to the beam of small fiberglass and plywood boat the consequences would be essentially the same - severe damage. Therefore, the *Norasia Alya*'s speed was not causative.

#### Rule 35 Signals in Reduced Visibility

The purpose of sounding fog signals is simply to alert a mariner of the presence of a nearby vessel. If a mariner fails to sound fog signals and another vessel is not alerted of his nearby presence, and this proves to be causative to a collision, then he would be held at fault.

Captain Kowalewski testified that that *Norasia Alya* was sounding fog signals. But even if it was not, however, such a fault could not have been causative of the collision with the *Ava Claire* because Mr. Stepski testified that he was aware (by radar) of a nearby vessel. Since Mr. Stepski already

was aware of the *Norasia Alya*'s presence, a fog signal would not have imparted any more information than Stepski already had.<sup>7</sup>

#### *Norasia Alya* Rules Conclusion

In my opinion, the master of the *Norasia Alya* fully complied with the COLREGS. He had two fully qualified, licensed and experienced officers manning the bridge who were maintaining an effective lookout, monitoring two state-of-the-art radar collision avoidance systems for vessel detection<sup>8</sup> and using the Sound Reception System to listen for fog signals ahead of the vessel. They were sounding fog signals and navigating at sea speed, with the ability to instantly reduce speed or otherwise effectively maneuver if required. Accordingly, the actions of the *Norasia Alya* did not cause the collision with the *Ava Claire* and she should not be held accountable for any portion of fault, in the highly unlikely event that she was the colliding vessel.

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<sup>7</sup> Additionally, it would not have made any difference because the *Ava Claire* was tied to a nearly one mile long string of nets and unable to maneuver.

<sup>8</sup> The ship's ECDIS time capture printouts: Norasia 0166, 0227, 0229 demonstrate the radar's ability to detect small, non-AIS targets by as much as seven miles away and as close as 2.4 miles away.

## APPENDIX I

### POSITION ANALYSIS

Information regarding EPIRB positions, *Ava Claire*'s and *Norasia Alya*'s positions<sup>1</sup> were plotted on an enlarged section of NOS Chart 12,300 for the purposes of determining the approximate location of the *Ava Claire* when she suffered a collision and the relative track of the *Norasia Alya*:

- The four reported EPIRB positions between 12:39 and 13:52 and the Coast Guard's recorded position of the crew rescue site indicate that the *Ava Claire* was fishing, prior to the incident somewhere approximately one half mile inside the two mile wide inbound safety fairway or 25% inside the boundary line.
- *Ava Claire*'s owner/captain Stepski's handwritten account, written sometime before 23:19 on May 22<sup>nd</sup> states that he was fishing around 11:00 at Loran position of 14,700 and 43,600, when the incident occurred. He reports the same incident time in his Coast Guard Report, CG -2692 - a report that was submitted about three days later on May 25<sup>th</sup>. This position is generally consistent with the reported EPIRB's position, first recorded at 12:39 on May 22<sup>nd</sup>.
- The Coast Guard Report of May 22<sup>nd</sup> report of Lt. \_\_ USCG pilot of the rescuing helicopter stated: "in short, they said the collision took place at 11:00 15:00 UTC."
- The *Ava Claire* captain/owner Stepski recollects in his November 2006 (more than two years after the incident in question) deposition that that his vessel was fishing at loran lines 43,615 and 14,650 (circled as position "C" on chart 12,300) a position about 2.5 miles north of his first reported position.
- The current at the time of the incident appeared to be easterly at a rate of about 0.6 kts.<sup>2</sup>
- The wind, throughout the relevant time was southerly approximately 10 knots.<sup>3</sup> This means that the collision could have taken place further south than indicated by the EPIRB positions.

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<sup>1</sup> Stepski Deposition transcript, US Coast Guard report(s), *Norasia Alya*'s EDCIS positions were plotted on an enlarged version of Chart

<sup>2</sup> Current based on initial EPIRB position at 12:39 and the location of crew recovery at about

<sup>3</sup> Norasia Deck log book 22 May 2004

- Based on an easterly current, an estimated position (EP) is plotted for 11:00, the approximate time when the captain/owner claims to have suffered the collision. The position is about 0.5 miles inside the safety fairway.
- The track of the *Norasia Alya* with respect to the EPIRB signaled positions and Coast Guard's recorded position of crew rescue indicates that the *Norasia Alya* passed about one mile north of the *Ava Claire*'s EPIRB position at about 12:39 and about 1.5 miles south of the Captain/owners second recollected position labeled as position "C"
- *Norasia Alya*'s track indicates that she passed the inbound *Podravina* -- a tanker navigating in the approximate middle of the safety fairway (one mile) at about 13:00 with an approximate CPA of about 2.4 miles.<sup>4</sup>

The *Norasia Alya*'s British Admiralty chart 2860<sup>5</sup> was used to determine the approximate location of the *Norasia Alya* with respect to the *Ava Claire* at various possible times of the incident.

- At 11:00, *Ava Claire*'s estimated time of the incident the *Norasia Alya* was about 35 miles eastward of the *Ava Claire*'s
- At 12:00 the *Norasia Alya* was about 13 miles eastward of the *Ava Claire*
- At 12:30 the *Norasia Alya* was about 3 miles eastward of the *Ava Claire*

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<sup>4</sup> Norasia O227.

<sup>5</sup> Norasia 0005 Kowalewski Exhibit # 15



